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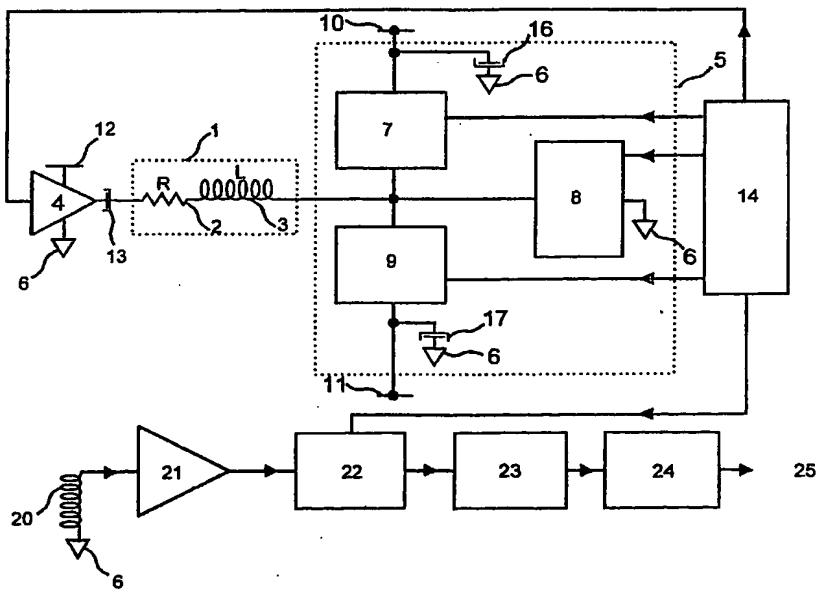
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(54) Title: MULTI-FREQUENCY METAL DETECTOR HAVING CONSTANT REACTIVE TRANSMIT VOLTAGE APPLIED TO A TRANSMIT COIL



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**(57) Abstract:** An electronic metal detector having a transmit coil (1) adapted to transmit an alternating magnetic field associated with a reactive transmit voltage, wherein the transmit voltage signal is selected such that the reactive transmit voltage is approximately constant for at least a time period during which a magnetic field signal to be processed is received by the detector for processing.